

Amendments to the Claims:

Please amend as follows:

Claim 1 (Currently Amended) A method for detecting cyclin dependent kinase 5 (Cdk5) activity in a biological sample, which method comprises determining whether Disabled 1 protein (Dab1) in said sample is phosphorylated on a serine within a candidate sequence preferred by cdk 5 activity, wherein phosphorylation of Dab1 on said ~~candidate sequence serine~~ indicates the presence of active Cdk5 in said sample.

Claim 2 (Currently Amended) The method of claim 1 wherein said Dab1 is a murine Dab1 and wherein the candidate sequence contains is included within the Cdk5 Dab1 amino acids consisting of serine 491 and 515 selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2.

Claim 3 (Currently Amended) The method of claim 1 wherein the candidate sequence is selected from the group consisting of ~~tryptic peptides~~ QSSPSK (SEQ ID NO:1) and SSASHVSDPTADDIFEEGFESPSK (SEQ ID NO:2).

Claim 4 (Original) The method of claim 1 wherein said biological sample is derived from an organism selected from the group consisting of mouse and human.

Claim 5 (Original) The method of claim 1 wherein said biological sample is derived from the group consisting of brain and blood.

Claim 6 (Original) The method of claim 1 wherein said biological sample is derived from a cell culture.

Claim 7 (Original) The method of claim 1 wherein said Dab1 phosphorylation occurs *in vivo*.

Claim 8 (Original) The method of claim 1 which comprises immunoprecipitating said Dab1 from said biological sample prior to said determining step using an antibody that binds to phosphorylated and unphosphorylated Dab1.

Claim 9 (Currently Amended) The method of claim 1 which comprises immunoprecipitating said Dab1 from said biological sample prior to said

determining step using an antibody that binds to Dab1 only when it is phosphorylated on a ~~Cdk5 candidate sequence~~ said serine.

Claim 10 (Currently Amended) The method of claim 1 wherein Dab1 phosphorylation is determined using an antibody that binds to Dab1 only when it is phosphorylated on a ~~candidate sequence preferred by Cdk5 activity~~ said serine.

Claim 11 (Currently Amended) The method of claim 10 wherein said antibody is raised against the polypeptide fragment TPAPRQSS(PO₄)PSKSSA (SEQ ID NO:3 which contains a phosphate group on ~~serine 491~~ the 8th amino acid).

Claim 12 (Currently Amended) The method of claim 10 wherein said antibody detects Dab1 phosphorylation on said serine contained within the amino acids consisting of serine 491 and serine 515 selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2.

Claim 13 (Original) The method of claim 10 wherein said antibody is polyclonal.

Claim 14 (Original) The method of claim 10 wherein said antibody is monoclonal.

Claim 15 (Original) The method of claim 10 wherein Dab1 phosphorylation is determined by using techniques consisting of radioimmunoassay, ELISA, "sandwich" immunoassays, immunoradiometric assays, gel diffusion precipitation reactions, immunodiffusion assays, in situ immunoassays, western blots, precipitation reactions, agglutination assays, complement fixation assays, immunofluorescence assays, protein A assays, immunoelectrophoresis assays, mass spectrometry and antibody array.

Claims 16-22 (Canceled)

Claim 23 (Original) A method for detecting neurological disorders in a subject, which method comprises detecting Cdk5 activity in said subject according to the method of claim 1 wherein an increase of said Dab1 phosphorylation in said biological sample as compared to a control biological sample from a control subject indicates the presence of a neurological disorder.

Claim 24 (Canceled)

Claim 25 (Original) A method for detecting neurological disorders, which method comprises detecting Cdk5 activity according to the method of claim 12 wherein an increase of said Dab1 phosphorylation in said biological sample as compared to a control biological sample indicates the presence of a neurological disorder.

Claims 26-31 (Canceled)

Claim 32 (New) A method for detecting cyclin dependent kinase 5 (Cdk5) activity from a biological sample, which method comprises immunoprecipitation of mouse Dab1 having GenBank accession number 1771281 from a biological sample with or without Cdk5; contacting the immunoprecipitated Dab1 with a phosphoantibody generated using SEQ ID NO:3 having a phosphorylated serine at position 8 of SEQ ID NO:3 as an antigen; detecting binding of the phosphoantibody to serine 491 of said Dab1, wherein increased binding of the phosphoantibody to serine 491 of said Dab1 in such biological sample with Cdk5 as compared to a sample without Cdk5 indicates the presence of Cdk5 kinase activity in said sample.